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## **REMARKS**

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Claims 1-17, 22-39, 44-45, and 47-55 are all the claims presently pending.

No claims have been amended and no new matter is added.

Claims 1, 6-10, 23, 28-32, 45, and 48-51 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kanno (U.S. Publication No. 2002/0016787).

Claims 2-5 and 24-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kanno in view of Newbold (U.S. Publication No. 2005/0192957).

Claims 11-17, 22, 33-39, 4, 47, and 52-55 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kanno in view of Egger, et al. (U.S. Patent No. 6,233,571).

These rejections are respectfully traversed in the following discussion.

## I. THE CLAIMED INVENTION

Applicant's invention, as disclosed and claimed (e.g., as exemplarily defined in independent claim 1) is directed to a <u>computer-implemented</u> method (and system) of indexing data blocks according to a collection of subject words, which includes constructing a N-dimensional coordinate space, <u>wherein N is a cardinality of the collection of subject words</u>.

Independent claims 22, 23, 44, 45, and 47 recite combinations which include the above limitation that N is a cardinality of the collection of subject words.

With these aspects, the invention provides a new navigation pattern of the present invention which is referred to herein as "Spatial Navigation" (see application at pages 12-13). It is noted that this navigation model is not limited to the navigation of data in the Web,

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which implies the traversal of HTML links. It can be used in any kind of data base. Further, it can also be used to navigate documents in the World Wide Web without relying on the traversal of Web links.

Thus, in the invention, a method (and system) are provided in which data blocks are organized according to a spatial function derived from the metadata and hyperlink information which is contained within each block.

The spatial function used in the data organization method is exemplarily derived from a distance function which represents a measure of the relevance of any two data blocks indexed in the system. This method has applications in the fields of data mining and information retrieval and can also assist in the navigation and retrieval of data blocks stored in the World Wide Web (WWW).

Thus, for example, the invention allows mapping any document into a spatial coordinate such that the spatial coordinate can be viewed according to the content of the document. If two documents are in close proximity in the physical plane, then the two documents are related (e.g., relevant to one another). Thus, the search engine operates by mapping into spatial coordinates all of the pages which are taken in (e.g., via a crawler process scanning Web pages or the like, etc.), and calculates the coordinates of the page in the spatial plane.

Hence, when a user poses a query for some page, the system begins at the insertion point and "inserts" the user into this virtual space in a certain coordinate according to the search criteria that was stipulated. At this time, the new paradigm for retrieving the document in the spatial plane according to the invention is performed such that a radius is

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calculated from the insertion point (based on the search criteria) and a proximity list is generated. The proximity list indicates the document(s) which are adjacent (near the spatial plane/coordinates) the insertion point.

It is noted that the invention uses a term-by-document matrix, but now with the present invention every row is associated with each other. In contrast, the rows in the conventional techniques are looked at in isolation (e.g., look at "IBM" alone and determine which documents have high counts, look at a second row for "XYZ" and determine which documents have a high score, etc.). However, as discussed below, the invention relates every row to one another.

For example, as discussed in the application at page 12, assuming a first row is "IBM", a second row is "Patents", a third row is "filed", and a fourth row is "Sun".

In such an example, a page which relates to IBM and patents, would have a very low count. However, if a second page included all of the patents in the world, then the count would be very high since not only IBM's patents are being looked at.

However, because the count for the word "Sun" is higher in the second page, this makes the second page more distant than the first page which related only to IBM. Thus, the invention uses terms, not necessarily asked for, to relate any two documents. Thus, a direction of a user's interest can be measured by correlating all of the terms used.

Such features as defined by the claimed invention are not taught or suggested by any other prior art of record.

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## THE PRIOR ART REJECTIONS П.

Claims 1, 6-10, 23, 28-32, 45, and 48-51 stand rejected under 35 U.S.C. § A. 102(e) as being anticipated by Kanno (U.S. Publication No. 2002/0016787).

First, Applicant notes that Kanno was filed on June 28, 2001 and published as a U.S. Application Publication on February 7, 2002. Therefore, Kanno is available as prior art under 35 U.S.C. § 102(e) based on its filing date of June 28, 2001.

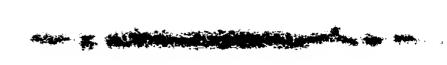
However, Applicant notes that the effective prior art date of June 28, 2001 of Kanno is only one (1) day prior to the present application's filing date of June 29, 2001.

Therefore, Applicant reserves the right to remove (i.e., "swear behind") the Kanno reference by filing a Declaration under 37 C.F.R. § 1.131, at a later date, which shows reduction to practice prior to the June 28, 2001 filing date of Kanno, or alternatively, conception prior to the June 28, 2001 filing date of Kanno coupled with due diligence from just before the June 28, 2001 filing date of Kanno to the June 29, 2001 filing date of the present application.

Second, notwithstanding the above, Applicant respectfully submits that Kanno clearly does not anticipate the claimed invention.

In the present Office Action, the Examiner alleges that Kanno discloses all of the features of the claimed invention. Applicant respectfully submits, however, that there are features of the claimed invention which are not disclosed or suggested by Kanno. Therefore, Applicant traverses this rejection.

For example, independent claim 1 recites a computer-implemented method of indexing data blocks according to a collection of subject words of the data blocks, including U.S. Application Serial No. 09/893,789 16 Docket No. YOR920010315US1 (YOR.292)



"constructing a N-dimensional coordinate space, wherein N is a cardinality of the collection of subject words of the data blocks" (emphasis added).

An important aspect of the claimed invention is that a <u>coordinate space</u> of N dimensions is built, where N is the number of <u>subject words of the data blocks</u>.

In the present invention, each document is represented as a vector which has a position in a coordinate system of N key words. The relationship is INDEPENDENT of any other document.

The advantages of the inventive system are quite significant. In the inventive system, a document can be added to the coordinate space without impacting the measurements of any other document.

In the present Office Action, the Examiner alleges that Kanno discloses constructing an N-dimensional coordinate space, wherein N is a cardinality of the collection of subject words of the data blocks (extracting or retrieving N keywords from a document in order to build or generate an N-dimensional vector space, citing Kanno at paragraphs [0018], and [0030]-[0033]) (see Office Action at page 3, lines 1-4).

However, Applicant submits that the cited portions of Kanno do <u>not</u> disclose or suggest (or even mention) "constructing a coordinate <u>space</u>", according to the claimed invention. Instead, Kanno discloses a vector profile.

Applicant submits that neither Kanno nor any of the other prior art of record build such a coordinate space, according to the claimed invention.

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Moreover, the cited portions of Kanno do not disclose or suggest (or even mention) that N is "a cardinality of the collection of subject words of the data blocks", as recited in claim 1.

Thus, Kanno does not disclose or suggest all of the features of independent claim 1.

Applicant submits that independent claims 23 is patentable over Kanno for somewhat similar reasons as independent claim 1.

For the foregoing reasons, Kanno does <u>not</u> disclose or suggest all of the features of the claimed invention. Therefore, the Examiner is requested to reconsider and withdraw this rejection and to permit claims 1, 6-10, 23, 28-32, 45, and 48-51 to pass to immediate allowance.

B. Claims 2-5 and 24-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kanno in view of Newbold (U.S. Publication No. 2005/0192957).

The Examiner alleges that the combination of Kanno and Newbold discloses or suggests all of the features of the claimed invention. Applicant respectfully submits, however, that there are features of the claimed invention which are <u>not</u> disclosed or suggested by Kanno and Newbold, either individually or in combination. Therefore, Applicant traverses this rejection.

For the reasons set forth above, Applicant submits that Kanno does <u>not</u> disclose or suggest all of the features for which it is relied upon. Moreover, Newbold does <u>not</u> make up for the deficiencies of Kanno.

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Thus, Kanno and Newbold, either individually or in combination, do <u>not</u> disclose or suggest all of the features of the claimed invention. Therefore, the Examiner is requested to reconsider and withdraw this rejection and to permit claims 2-5 and 24-27 to pass to immediate allowance.

C. Claims 11-17, 22, 33-39, 4, 47, and 52-55 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kanno in view of Egger.

The Examiner alleges that the combination of Kanno and Egger discloses or suggests all of the features of the claimed invention. Applicant respectfully submits, however, that there are features of the claimed invention which are <u>not</u> disclosed or suggested by Kanno and Egger, either individually or in combination. Therefore, Applicant traverses this rejection.

For the reasons set forth above, applicant submits that Kanno does <u>not</u> disclose or suggest all of the features for which it is relied upon. Moreover, Egger does <u>not</u> make up for the deficiencies of Kanno, for at least the reasons set forth in the previous Amendments filed on April 13, 2005, August 15, 2005, and October 5, 2005, by Applicant, which are incorporated herein by reference in their entirety.

Thus, Kanno and Egger, either individually or in combination, do <u>not</u> disclose or suggest all of the features of the claimed invention. Therefore, the Examiner is requested to reconsider and withdraw this rejection and to permit claims 11-17, 22, 33-39, 4, 47, and 52-55 to pass to immediate allowance.

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## III. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 1-17, 22-39, 44, 45, and 47-55, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a <u>telephonic or personal interview</u>.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 50-0510.

Respectfully Submitted,

Date: February 3, 2006

John J. Dresch, Esq. Registration No. 46,672

Sean M. McGinn, Esq. Registration No. 34,386

MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC

8321 Old Courthouse Road, Suite 200 Vienna, Virginia 22182-3817 (703) 761-4100

Customer No. 21254

**CERTIFICATE OF TRANSMISSION** 

I certify that I transmitted via facsimile to (571) 273-8300 the enclosed Request for Reconsideration under 37 C.F.R. § 1.111 to Examiner Anh Ly, Group Art Unit 2162, on February 3, 2006.

Registration No. 46,672